

**EXHIBIT A - RESUME OF PAUL WIERZBA, P.Eng, Ph.D.**

**Paul Wierzba**  
**1116 Lake Placid Drive SE**  
**Calgary, Alberta T2J 5H1**

**Summary**

- ! Sixteen years engineering experience in the areas of: acoustics, vibration, industrial noise control, fluid mechanics, aerodynamics, dynamics, and combustion.
- ! Ten years experience in directing and managing teams of diverse individuals involved in R&D, application engineering, and product development projects.
- ! Eight years experience in patenting and intellectual property protection.
- ! Nine years experience in technical customer support.
- ! Two and a half years experience in designing, design evaluation, analysis, and code compliance assessment of pipelines and plant piping systems.
- ! Fourteen years experience in computer modelling and computer programming (Fortran, Basic).

**Education**

- ! M.B.A., Nova Southeastern University, Fort Lauderdale, Florida (November, 1998). Emphasis: Business Values Integration.
- ! Ph.D., Mechanical Engineering, University of Calgary, Calgary, Alberta (June, 1991). Emphasis: Dynamics, Vibration, Computer Modelling of Mechanical Systems.
- ! B.Sc., Mechanical Engineering, University of Calgary, Calgary, Alberta (June, 1984). Emphasis: Thermo-fluids, Solid Mechanics.

**Recent Work Experience**

TRILEX VIBROACOUSTICAL CORPORATION, Calgary, Alberta  
*Principle Consultant, Owner, (January, 2002 – Present)*

Responsibilities:

- Responsible for engineering practice and overall corporate governance.
- Noise and vibration analysis and diagnostic of rotating machinery, particularly in relation to the power generation and Oil & Gas industries.
- Design of noise control treatments and acoustic detailing.
- Project management for supply and installation of noise control treatments.

OUTLAND TECHNOLOGIES INC., Calgary, Alberta  
*Consultant, Technology Adviser, (March, 2002 – Present)*

Responsibilities:

- Assistance with research and development initiatives and undertakings.
- Design and analysis of pumping, gas compression and expansion systems.

- Assistance with computer modelling and experimental testing.  
SKF AUTOBALANCE SYSTEMS AB, Gothenburg, Sweden  
*Consultant, Technology and Intellectual Property Adviser, (July 1999 – Present)*

Responsibilities:

- Assistance with research and development initiatives and undertakings.
- Design review and feasibility assessment of mechanical systems
- Technical support for customer application projects.
- Intellectual property protection.

ATCO NOISE MANAGEMENT LTD., Calgary, Alberta  
*Manager, Science & Technology, (May 1998 – March 2001)*

Responsibilities:

- Development and enhancement of 'in-house' capabilities and competencies pertaining to industrial noise control.
- Risk assessment and risk management of industrial noise control projects.
- Management of in-house noise control technology.

Accomplishments

- Established an acoustic analysis and design group within the company capable of performing acoustic analysis, modelling, design, and detailing work related to client projects.
- Established field measurement and data acquisition capabilities.
- Implemented internal tools for design quality assurance, component and subsystem design reviews and assessments, and risk management pertaining to noise control designs.

EUROPEAN TECHNOLOGIES INTERNATIONAL, INC., Calgary, Alberta  
*Vice-President, Engineering (March 1996 - January 1998)*

Responsibilities

- Operations of the engineering department consisting of R&D, Computer Modelling, Applications Engineering, Instrumentation, Testing, Data Acquisition, Prototyping, and Fabrication.
- Intellectual property protection: patenting, technical disclosure, confidentiality agreements, contract review.
- ! Overall direction of the development of the proprietary anti-vibration technology; research grants from National Research Council of Canada, Industrial Research Assistance Program (NRC IRAP); technical assistance to existing customers.
- ! Preparation and delivery of high-level technical presentations for customers and investors.

Accomplishments

- Guided successful developments of four aftermarket products and two OEM (Original Equipment Manufacturer) applications resulting in two commercial products under

licensing agreements, an OEM licensing deal, and a successful market entry of an existing licensee.

- Spearheaded the development of the proprietary anti-vibration technology to a global status with wide recognition, including 1997 APEGGA Project Achievement Award, three technical publications, and two PEGG articles.
- Directed a successful prosecution of five U.S. patents, a European patent, and several other foreign filings.
- Guided developments of in-house computational and data acquisition tools.
- Co-authored several patents and patent applications; strengthened and extended intellectual property protection with new inventions and additional patent filings.

EUROPEAN TECHNOLOGIES INTERNATIONAL, INC., Calgary, Alberta

*Manager, Research and Development, (October 1994 - February 1996)*

Responsibilities

- Development and advancement of the proprietary anti-vibration technology (theoretical and experimental); interviewing and hiring of engineering staff; development of computer models; NRC, IRAP research grants.
- ! Intellectual property protection: prior art review and technical support in patenting process
- ! Preparation of technical presentations for potential customers; preparation of customer training sessions and customer training; and technical assistance to Investor Relations department.

Accomplishments

- Secured financial support from NRC, IRAP in excess of \$150,000 over 18-month period.
- Guided and managed a rapid technology development program and compiled first technology binder.
- Facilitated successful expansion of engineering department from 5 to 13 employees; initiated a multifaceted research program including such areas as dynamics, fluid mechanics, tribology and data acquisition; and published first technical paper.
- Secured the first U.S. patent allowance and provided direction for future extension of patent protection.

EUROPEAN TECHNOLOGIES INTERNATIONAL, INC., Calgary, Alberta

*External Consultant, (February 1994 - October 1994)*

Duties

- Provided technical support in meetings and dealings with existing and prospective customers.
- Evaluated the state of technology; performed extensive technical literature review; and recommended necessary future developments.
- Provided technical prior art reviews in the initial stages of the patenting process.

BURT ENGINEERING LTD. Calgary, Alberta  
*Associate, (October 1991 - May 1994)*

Duties

- Performed stress analysis of piping systems, nozzles, and pressure vessels.
- Carried-out code compliance assessment of oil and gas pipelines, plant piping, and pressure vessels (ASME VIII Div.1&2, B31.3, B31.4, B31.8; CSA Z183, Z184).
- Designed expansion loops, anchor blocks, and risers; liaised with clients; prepared engineering reports.

UNIVERSITY OF CALGARY, Calgary, Alberta  
*Lecturer - Mechanical Engineering Department, (September 1992 - May 1993)*

Duties

- Full teaching responsibilities for senior level engineering courses: "Linear Control Systems" (ENME 585, Fall 1992) and "Advanced Dynamics" (ENME 483, Winter 1993).

### List of US Patents Issued

I was instrumental in the preparation of invention disclosure, application preparation, and application draft review for the following US patents, of which I am a co-inventor. Additionally, I assisted the patent attorneys in successful prosecution of the applications.

<b>Patent No.</b>	<b>Date Issued.</b>	<b>Patent Title</b>
US6321627	11/27/2001	Sawing apparatus
US6082151	07/04/2000	Balancing device for use on washing machines
US6035758	03/14/2000	Saw blade drive system
US5997284	12/07/1999	Portable flare tank for degassing of drilling fluid
US5941133	08/24/1999	Torsional and translational vibration removing device
US5845542	12/08/1998	Dynamic balancing method and apparatus
US5829318	11/03/1998	Dynamic balancing method and apparatus
US5816115	10/06/1998	Weight compensating method and apparatus
US5768951	06/23/1998	Dynamic balancing method and apparatus
US5724862	03/10/1998	Dynamic balancing method and apparatus
US5613408	03/25/1997	Weight compensating method and apparatus
US5605078	02/25/1997	Weight compensating method and apparatus

I am also a co-inventor on a number of foreign patents as well as several patent pending applications presently with the US PTO.

### List of Publications

"Simulation of Motion of Cluster of Ice Floes", 14th IASTED International Conference, Applications in Fluid Flow, Vancouver, B.C., June 1986, (co-author: O. Vinogradov).

"Technical Review of Activated Charcoal", Hi-Point Industries Limited, Calgary, Alberta, 1988.

"On Computer Simulations of Ice Motion in Rivers", Northern Hydrology Symposium, Saskatoon, Saskatchewan, July 1990, (co-authors: O. Vinogradov, A. J. Springer).

"Planar Dynamics of Topologically Variable Multi-Body Systems", Ph.D. thesis, University of Calgary, Calgary, Alberta, 1990.

"Simulation of Topologically Variable Multi Body Systems in Plane Motion", 1991 European Simulation Multiconference, Copenhagen, Denmark, 1991, (co-author: O. Vinogradov).

"An Analytical Examination of the Combustion of a Turbulent Fuel Jet in an Environment of Air Containing a Premixed Fuel or a Diluent", Spring Technical Meeting of the Combustion Institute, Ottawa, Ontario, May 1991, (co-authors: G.A. Karim, I. Wierzb).

"On the Validity of Computer Simulation of Motion of Broken Ice", IASTED International Conference, Modelling and Simulation, Calgary, Alberta, July 16-19, 1991, (co-author: O. Vinogradov).

"An Examination of the Combustion of a Turbulent Fuel Jet in an Environment Containing a Premixed Fuel or a Diluent and Air", ASME Energy Resources and Technology Conference, Houston, Texas, January 26-30, 1992, (co-authors: G.A. Karim, I. Wierzb).

"The Effect of Air Contamination on the Characteristics of a Jet Diffusion Flame", CSME FORUM 1992, Montreal, Quebec, June 1-5, 1992, (co-authors: G.A. Karim, I. Wierzb).

"The Formation of Flammable Zones within Vertical Cylindrical Tanks Containing Some Liquid Fuels", Proc. of the ASME/ETCE Conference, Houston, Texas, January, 1993, (co-authors: G.A. Karim, C.Y. Zhang).

"An Analytical Examination of the Combustion of a Turbulent Jet in an Environment Air Containing a Premixed Fuel and Diluent", Transactions of the ASME/Journal of Energy Resources Technology, September 1995, (co-authors: G.A. Karim, I. Wierzb).

"Automatic Balancing of Three-Dimensional Rigid Rotor Systems", Proceedings of Fifteenth Machinery Vibration Seminar, Banff, Alberta, October 1996, (co-authors: J. Park, W. Cao)

"Automatic Balancing of Rigid Rotor Using Ball Balancer", Proceedings of the KSME Fall Annual Meeting, Seoul, South Korea, 1996, (co-authors: J. Park, W. Cao)